

S/N: 10/626,496

Amendments to the Specification

Please replace the paragraph beginning on page 2, line 13, with the following amended paragraph:

Newer systems provide some level of remote communication between an endpoint such as an electrical meter and a central location. One such system is an automated meter reading (AMR) system that utilizes a power line to establish a data link between a concentrator and endpoint meter reading units positioned downstream from the substation. The concentrator typically includes a transmitter for transmitting control information to the endpoint and a receiver for receiving data such as watt-hour information from the endpoint. The endpoint includes a transmitter, a receiver, and electronics or other circuitry for reading the meter. Other remote meter reading and data communication systems that use modems, radio frequency signals, or power line communication (PLC) PLC signals can communicate with only one endpoint at a time and thus have limited capacity.

Please replace the paragraph beginning on page 4, line 2, with the following amended paragraph:

One aspect of the invention is a system for bi-directional communication within a power distribution system. The system is configured to find an endpoint, the endpoint having an endpoint transceiver in electrical communication with a power distribution line. The power distribution line is within the power distribution system, and the endpoint is identified by a unique identifier (I.D.). The system comprises a substation transceiver electrically coupled to a power distribution line within the power distribution system. A substation circuit is in electrical communication with the substation transceiver. The substation circuit is programmed

S/N: 10/626,496

to map the unique I.D. for the endpoint to a base frequency within a bandwidth and to control the endpoint to transmit a find endpoint data packet onto the power distribution network. The find endpoint data packet includes the unique I.D. and the base frequency. The substation circuit is further programmed to assign a status to the base frequency upon receiving a signal from the endpoint, the status indicating that the substation transceiver is receiving signals in the frequency bandwidth.

Please replace the paragraph (Abstract) beginning on page 56, line 2, with the following amended paragraph:

A system for bi-directional communication within a power distribution system. The system is configured to find an endpoint, the endpoint having an endpoint transceiver in electrical communication with a power distribution line. The power distribution line is within the power distribution system, and the endpoint is identified by a unique identifier (I.D.). The system comprises a substation transceiver electrically coupled to a power distribution line within the power distribution system. A substation circuit is in electrical communication with the substation transceiver. The substation circuit is programmed to map the unique I.D. for the endpoint to a base frequency within a bandwidth and to control the endpoint to transmit a find endpoint data packet onto the power distribution network. The find endpoint data packet includes the unique I.D. and the base frequency. The substation circuit is further programmed to assign a status to the base frequency upon receiving a signal from the endpoint, the status indicating that the substation transceiver is receiving signals in the frequency bandwidth.